

## BOARD OF COUNTY COMMISSIONERS

### AGENDA ITEM SUMMARY

Meeting Date: 16 November 2005 Division: Growth Management  
Bulk Item: Yes        No X Department: Marine Resources  
Staff Contact: George Garrett

#### AGENDA ITEM WORDING:

Public hearing to consider an ordinance to amend Section 9.5-293 (e) (4) and (f) (2) of the Monroe County Land Development Regulations concerning surface water management (stormwater drainage).

#### ITEM BACKGROUND:

The proposed ordinance is intended to provide clarification and simplification of the County's current surface water (stormwater) management criteria. It is based on discussions held between County staff and the Department of Community Affairs and is predicated on the work developed by Camp, Dresser, and McKee (CDM), the firm that completed the County's Stormwater Management Master Plan. CDM also drafted this proposed ordinance revision.

#### PREVIOUS RELEVANT BOCC ACTION:

None

#### CONTRACT/AGREEMENT CHANGES:

NA

#### STAFF RECOMMENDATIONS:

Approval

TOTAL COST: NA BUDGETED: Yes        No       

COST TO COUNTY: NA SOURCE OF FUNDS:       

REVENUE PRODUCING: Yes        No X AMOUNT Per Month        Year       

APPROVED BY: County Atty X OMB/Purchasing NA Risk Management NA

DIVISION DIRECTOR APPROVAL: Timothy McGarry, Director of Growth Management

DOCUMENTATION: Included X Not Required       

DISPOSITION:        AGENDA ITEM NO.:

**ORDINANCE NO. - 2005**

**AN ORDINANCE OF THE BOARD OF COUNTY COMMISSIONERS OF MONROE COUNTY, FLORIDA, AMENDING SECTIONS 9.5-293 (e) (4) and (f) (2), MONROE COUNTY CODE, SURFACE WATER MANAGEMENT CRITERIA, PROVIDING FOR SEVERABILITY; PROVIDING FOR THE REPEAL OF ALL ORDINANCES INCONSISTENT HERewith; PROVIDING FOR INCORPORATION INTO THE MONROE COUNTY CODE OF ORDINANCES; AND PROVIDING AN EFFECTIVE DATE.**

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**WHEREAS**, Monroe County is obligated under Objective 1001.3, Monroe County Year 2010 Comprehensive Plan to adopt a Stormwater Management Master Plan; and

**WHEREAS**, Monroe County completed and adopted its Stormwater Management Master Plan in August of 2001; and

**WHEREAS**, Monroe County similarly is obligated under Policy 1001.1.3 Monroe County Year 2010 Comprehensive Plan, to adopt and update a comprehensive Stormwater Management Ordinance; and

**WHEREAS**, a Stormwater Management Ordinance was adopted in 1992 as Section 9.5-293, Land Development Regulations, Surface Water Management Criteria; and

**WHEREAS**, this Amendment to Section 9.5-293 is based upon the adopted Stormwater Management Master Plan (2001) and constitutes a revision to the ordinance based upon current state standards for surface water management and particularly those guiding discharge to Outstanding Florida Waters,

**NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF MONROE COUNTY, FLORIDA THAT:**

**Section 1.** 9.5-293 (e) (4), Monroe County Code, is hereby amended as follows:

(4) *Water quality considerations:* All new surface water management systems will be evaluated based on the ability of the system to prevent degradation of receiving waters and the ability to conform to state water quality standards established in chapters 6217-3, 6217-25, and 6217-40, Florida Administrative Code. Developments which plan to discharge stormwater to Outstanding Florida Waters will need to provide greater treatment as listed in Section 2.

**Section 2.** Sec. 9.5-293 (f) (2), Monroe County Code, is hereby amended to read as follows:

(2) *Water quality:*

- a. Projects shall be designed so that discharges do not degrade the receiving water quality will meet state water quality standards, as set forth in chapters 6217-3, 6217-25 and 6217-40, Florida Administrative Code.
- b. Retention/detention criteria: These criteria are based on the minimum treatment requirements of Chapter 62-40, FAC ~~principle that the first flush of runoff contains the majority of the pollutants.~~ The volume which needs to be retained or detained is dependent on the impervious area percent and whether or not the discharge is to sensitive receiving waters as defined below ~~method of stormwater management and the land use.~~

(i) For projects that do not discharge directly to sensitive receiving waters, retention and/or detention in the overall system, including swales, canals, greenways, and similar waterways, shall be provided for the first inch of rainfall or two and one half (2.5) inches of rainfall times the percent of impervious coverage, dependent upon the percent of impervious surface whichever is greater. The retention or detention volumes shall be calculated according to the following formulae:

For impervious surface area percent of 40 percent or less:

Treatment Volume (acre feet) = Disturbed Area (acres) x 1 (inch) /12 (inches/foot)

For impervious surface area percent greater than 40 percent:

Treatment Volume (acre feet) = Disturbed Area (acres) x 2.5 (inches) x Percent Impervious Area (%) /100(%) /12 (inches/foot)

Where Treatment Volume (acre feet) is the amount of stormwater treatment necessary, disturbed area (acres) is defined under item (iii) below, and impervious surface area percent is the total area of the impervious surface divided by the total property area times 100.

(ii) — Commercial or industrial projects shall provide at least one-half (0.5) inch of dry detention or retention pretreatment as part of the required retention/detention.

(ii) Projects which discharge directly to sensitive receiving waters shall provide the dry retention or detention volume according to the following formula:

Treatment Volume (acre feet) = C x Disturbed Area (acres) x 3.2 (inches) /12 (inches/foot)

Where Treatment Volume (acre feet) is the amount of stormwater treatment necessary, C is the Rational Method runoff coefficient. The Rational Method coefficient for the water quality treatment volume calculations shall be 0.1 for pervious areas and 0.95 for impervious areas.

(iii) Commercial or industrial projects shall provide at least one-half (0.50) inch of dry detention or retention pretreatment prior to discharge to a disposal structure such as a well, subsurface drainage basin, or trench, as part of the required retention/detention.

(iii) — Systems with inlets in grassed areas will be credited with up to two-tenths (0.20) inch of the required wet detention amount for the contributing areas. Full credit will be based on a ratio of 5:1 (pervious area/impervious area), with the exception of saltmarsh and buttonwood habitats, which will require a comparable ratio of 7:1. Grassed areas must be permanently protected from vehicular use and structural encroachment.

(iv) For the purposes of this section, the “disturbed area” shall include the entire lot except that the areas covered by the following “best management practices” shall be subtracted from the calculation of disturbed area:

1. Forested upland areas / vegetative buffer strips (both natural and man-made) which will be retained intact and over or through which vehicular access or travel is not possible and will not occur, and
2. Open water surfaces and wetlands (saltmarsh, buttonwood, mangroves, or freshwater marsh habitat types).

It will be the responsibility of the applicant to affirmatively demonstrate that the best management practices used for the project are designed, constructed, and maintained properly.

(iv) For the purposes of this section, “discharging directly to sensitive waters” shall mean the discharge of runoff via a pipe or channel outfall to the near shore waters, including canals, for which there is no intervening stormwater treatment system such as those listed in 9.5-293(f) (2) b (iii). Sensitive receiving waters are defined as:

Class I waters, Class II waters, Class III waters, Outstanding Florida Waters, and/or canals connecting with these waters.

~~(iv) Projects having greater than forty (40) percent impervious area which discharge directly to sensitive receiving water shall provide dry detention or retention pretreatment equal to fifty (5) percent of the total required depending on the arrangement of the on-site facilities. Sensitive receiving waters are defined as~~

- ~~1. Class I or Class II waters;~~
- ~~2. Class III, Outstanding Florida Waters;~~
- ~~3. Canals connecting with these waters.~~

(v) Treatment storage recovery shall be estimated using a safety factor of two for retention systems with supporting infiltration test(s).

~~(v) Water surfaces can be deducted from site areas for water quality pervious/impervious calculations.~~

(vi) Dry detention treatment volumes shall be “offline” allowing a bypass for storms greater than 1.0, 2.5, or 3.2 inches as applicable.

**Section 3.** In all other respects, 9.5-293, Monroe County Code, Surface Water Management Criteria will be retained as currently codified.

**Section 4.** If any section, subsection, sentence, clause or provision of this ordinance is held invalid, the remainder of this ordinance shall not be affected by such invalidity.

**Section 5.** All ordinances or parts of ordinances in conflict with this ordinance are hereby repealed to the extent of said conflict.

**Section 6.** The provisions of this ordinance shall be included and incorporated in the Code of Ordinances of the County of Monroe, Florida, as an addition or amendment thereto, and shall be appropriately renumbered to conform to the uniform numbering system of the Code.

**Section 7.** This ordinance is hereby transmitted to the Florida Department of Community Affairs pursuant to Chapter 380 F.S. for review and approval, modification, or rejection.

**Section 8.** This ordinance shall be filed in the Office of the Secretary of the State of the State of Florida, but shall not become effective until a notice is issued by the Department of Community Affairs or Administration Commission approving this ordinance pursuant to Chapter 380, F.S

PASSED AND ADOPTED by the Board of County Commissioners of Monroe County, Florida, at a regular meeting of said Board held on the 16<sup>th</sup> day of November, 2005.

Mayor Spehar  
Mayor Pro Tem McCoy  
Commissioner Neugent  
Commissioner Rice  
Commissioner Nelson

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\_\_\_\_\_

(SEAL)

Attest: DANNY L.KOLHAGE, Clerk

BOARD OF COUNTY COMMISSIONERS  
OF MONROE COUNTY, FLORIDA

By \_\_\_\_\_  
Deputy Clerk

By \_\_\_\_\_  
Mayor/Chairperson

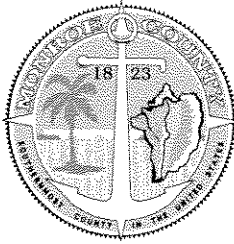
APPROVED AS TO FORM

Kerry L. Willis 10-28-05  
ATTORNEY'S OFFICE

# Memorandum

**Department of Marine Resources**

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Marathon, Florida 33050  
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**Board of County Commissioners**

Mayor Dixie Spehar, Dist. 1  
Mayor Pro Tem Sonny McCoy, Dist. 3  
Commissioner George Neugent, Dist. 2  
Commissioner David Rice, Dist. 4  
Commissioner Murray Nelson, Dist. 5

DATE: 31 October, 2005

TO: Monroe County Board of Commissioners

FROM: George Garrett, Director of Marine Resources

SUBJECT: Proposed Ordinance – Recommended changes to the Surface Water (Stormwater) Management Criteria established in Section 9.5-293 (e) (4) and (f) (2).

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**BACKGROUND**

Monroe County is obligated under Objective 1001.3, Monroe County Year 2010 Comprehensive Plan to adopt a Stormwater Management Master Plan. Monroe County completed and adopted its Stormwater Management Master Plan in August of 2001. Monroe County similarly is obligated under Policy 1001.1.3 Monroe County Year 2010 Comprehensive Plan, to adopt and update a comprehensive Stormwater Management Ordinance. A Stormwater Management Ordinance was adopted in 1992 as Section 9.5-293, Land Development Regulations, Surface Water Management Criteria. This Amendment to Section 9.5-293 is based upon the adopted Stormwater Management Master Plan (2001) and constitutes a revision to the ordinance based on current state standards for surface water management and particularly those guiding discharge to Outstanding Florida Waters.

To add highlight to the adoption of this Ordinance, there have been conflicts in the review of the current stormwater ordinance as viewed by Florida Department of Community Affairs (FDCA) and the County. This ordinance seeks to clarify and resolve those differences in the past interpretation of the ordinance and its implementation.

The proposed ordinance amending Section 9.5-293 (e) and (f) is attached for your review.

## ANALYSIS

The proposed ordinance is intended to provide clarification and simplification of the County's current surface water (stormwater) management criteria. It is based on discussions held between County staff and the Department of Community Affairs and is predicated on the work developed by Camp, Dresser, and McKee (CDM), the firm that completed the County's Stormwater Management Master Plan. CDM also drafted this proposed ordinance revision.

The recommended Ordinance accomplishes the same or similar levels of treatment for stormwater discharges resulting from the development of a property. At the same time the calculations for all but stormwater discharges to sensitive receiving waters as defined (essentially all waters of the County – marine and freshwater) have been simplified or clarified.

Through past practice, the County developed a simplified users guide to completing stormwater calculations. Confusion arose over how the calculations incorporated the "disturbed area" and the compliment, undisturbed or natural areas into stormwater calculations.

The proposed ordinance breaks up Section 9.5-293 (f) (2) b. (i) into two complimentary components, each based on the percent of impervious surface for which stormwater is being managed on residential projects; less than 40 percent (< 40 %) or greater than forty percent (> 40%). Formulae are provided with which to make appropriate calculations for either case.

Section 9.5-293 (f) (2) b. (iii) concerning the issue of credits for grassy swale areas is eliminated, thus creating a more conservative calculation of the retention / detention requirements. This is compensated slightly through a clarification of the term "disturbed area" (used in the Simplified Users Guide). The proposed ordinance provides a new section, Section 9.5-293 (f) (2) b. (iii) (replacing the old section by the same code citation) which defines the term "disturbed area," as the area of the entire lot, but granting specific exceptions for

- Forested areas / vegetative buffer strips (both natural or man-made);
- Open water surfaces and wetlands; and
- Porous pavement such as pavers with a porous media substrate.

Finally, clarification is made to Section 9.5-293 (f) (2) b. (ii) concerning commercial development. No specific changes are made to the requirements of the section, but the intent and purpose for the section is clarified.

#### RECOMMENDATION

The Development Review Committee reviewed and recommended approval of the proposed ordinance on October 6, 2005 as did the Planning Commission on October 12, 2005 with no suggested revisions.

Staff recommends approval of the proposed ordinance, revising the Surface Water (Stormwater) Management Criteria found in Section 9.5-293 (e) and (f)